

out multitudes of small long cylindrical and transparent stalks, not exactly streight, but a little bended with the weight of a round and white knob that grew on the top of each of them; many of these knobs I observ'd to be very round, and of a smooth surface, such as A A, &c. others smooth likewise, but a little oblong, as B; several of them a little broken, or cloven with chops at the top, as C; others flitter'd as 'twere, or flown all to pieces, as D D. The whole substance of these pretty bodies was of a very tender constitution, much like the substance of the softer kind of common white Mushrooms, for by touching them with a Pin, I found them to be brused and torn; they seem'd each of them to have a distinct root of their own; for though they grew neer together in a cluster, yet I could perceive each stem to rise out of a distinct part or pore of the Leather; some of these were small and short, as seeming to have been but newly sprung up, of these the balls were for the most part round, others were bigger, and taller, as being perhaps of a longer growth, and of these, for the most part, the heads were broken, and some much wasted, as E; what these heads contain'd I could not perceive; whether they were knobs and flowers, or seed cases, I am not able to say, but they seem'd most likely to be of the same nature with those that grow on Mushrooms, which they did, some of them, not a little resemble.

Both their smell and taste, which are active enough to make a sensible impression upon those organs, are unpleasant and noisome.

I could not find that they would so quickly be destroy'd by the actual flame of a Candle, as at first sight of them I conceived they would be, but they remain'd intire after I had past that part of the Leather on which they stuck three or four times through the flame of a Candle; so that, it seems they are not very apt to take fire, no more then the common white Mushrooms are when they are fappy.

There are a multitude of other shapes, of which these Microscopical Mushrooms are figur'd, which would have been a long Work to have described, and would not have suited so well with my design in this Treatise, onely, amongst the rest, I must not forget to take notice of one that was a little like to, or resembled, a Sponge, consisting of a multitude of little Ramifications almost as that body does, which indeed seems to be a kind of Water-Mushroom, of a very pretty texture, as I else-where manifest. And a second, which I must not omit, because often mingled, and neer adjoining to these I have describ'd, and this appear'd much like a Thicket of bushes, or brambles, very much branch'd, and extended, some of them, to a great length, in proportion to their Diameter, like creeping brambles.

The manner of the growth and formation of this kind of Vegetable, is the third head of Enquiry, which, had I time, I should follow: the figure and method of Generation in this concrete seeming to me, next after the Enquiry into the formation, figuration, or chrytalization of Salts, to be the most simple, plain, and easie; and it seems to be a *medium* through which he must necessarily pass, that would with any likelihood investigate the *forma informans* of Vegetables: for as I think that he shall find it a very difficult task, who undertakes to discover the form of Sa-

line

line crystallizations, without the consideration and picture and reason of a Globular form, and as difficult to figuration of Mushrooms, without the previous consideration of Salts; so will the enquiry into the forms of Vegetables not much more difficult, without the fore-knowledge of Mushrooms, these several Enquiries having no less dependence on another then any select number of Propositions in mathematics may be made to have.

Nor do I imagine that the skips from the one to another very great, if beginning from fluidity, or body with descend gradually, till we arrive at the highest form of Soul, making the steps or foundations of our Enquiry, *Fixation, Angulization, or Crystallization Generation, Vegetation, Plantation, Animation, Sensation,*

Now, that we may the better proceed in our Enquiry, I will first enquire into the nature of the matter requisite to consider:

First, that Mould and Mushrooms require no seminal matter, the former may be produc'd at any time from any kind of Vegetable Substance, as Fleish, &c. kept moist and warm, if what *Mathiolus* relates be true, of making them by the power of the Sun, within our command, of which Matter take the Example *Parkinson* has deliver'd in his *Herbal*, in his Chapter of Mushrooms. I have not *Mathiolus* now by me: *Unto these Mushrooms also be adjoyn'd those which are made of Art (whereof mention is made by the same Author) that grow naturally among certain stones in Naples, the stones being digg'd up, and carried to Rome, and other places, set them in their Wine Cellars, covering them with a little warm water thereon, would within four days be fit to be eaten, at what time one will: As also that Mushrooms grow at the foot of a wilde Poplar Tree, within four days, in water wherein some leaves have been dissolv'd shall be perfect (which must be slit) and the stock above ground.*

Next, that as Mushrooms may be generated without seed, it does not appear that they have any such thing as seed in any other kind of Vegetable, having considered several kinds of them, I could never find them that I could with any probability guess to be thence generated, it does not as yet appear (that I know of) that Mushrooms are generated from a seed, but they rather seem to depend on the convenient constitution of the matter out of which they are generated, by the concurrence of either natural or artificial heat.

Thirdly, that by several bodies (as Salts and Metals) in the air, and by several kinds of sublimations in the air, guided with a congruous heat, there may be produced several bodies as curiously, if not of a more compos'd Figure, as rising or Ebuliating Figures seem to manifest; as witness the Rectification of spirits of Urine, Hart-horn, Bloud, &c. the curious branches of evaporated dissolutions, some